

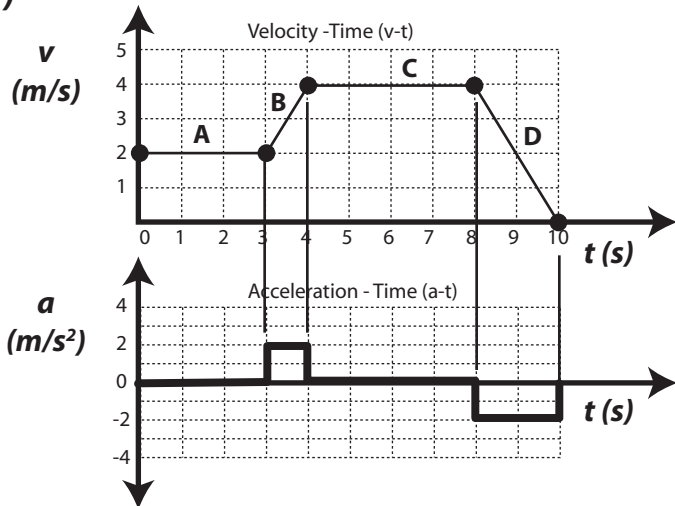
Name: **Key**

Period: \_\_\_\_\_ Table: \_\_\_\_\_

/ 15

**Given the following Velocity-Time (v-t) graphs draw the accompanying Acceleration-Time (a-t) Graphs to scale. Use the space to the right to calculate the slope of each line. SHOW YOUR WORK!!!**

1)



**Examples:**

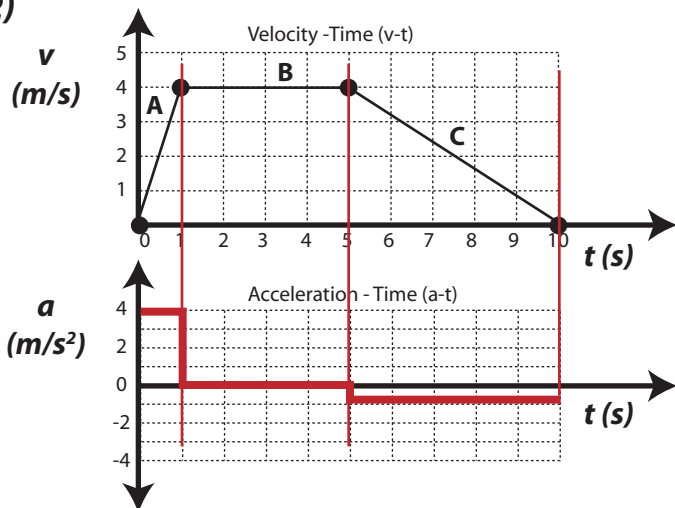
Slope of A = rise/run = 0 m/s / 1 s = 0 m/s<sup>2</sup>

Slope of B = rise/run = 2 m/s / 1 s = 2 m/s<sup>2</sup>

Slope of C = rise/run = 0 m/s / 1 s = 0 m/s<sup>2</sup>

Slope of D = rise/run = -4 m/s / 2 s = -2 m/s<sup>2</sup>

2)



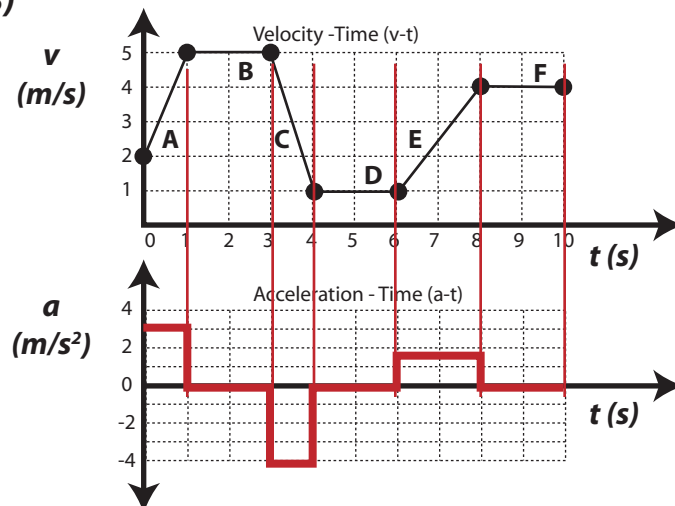
**Calculations:**

Slope of A = rise/run = 4 m/s / 1 s = 4 m/s<sup>2</sup>

Slope of B = rise/run = 0 m/s / 4 s = 0 m/s<sup>2</sup>

Slope of C = rise/run = -4 m/s / 6 s = -0.67 m/s<sup>2</sup>

3)



**Calculations:**

Slope of A = rise/run = 3 m/s / 1 s = 3 m/s<sup>2</sup>

Slope of B = rise/run = 0 m/s / 2 s = 0 m/s<sup>2</sup>

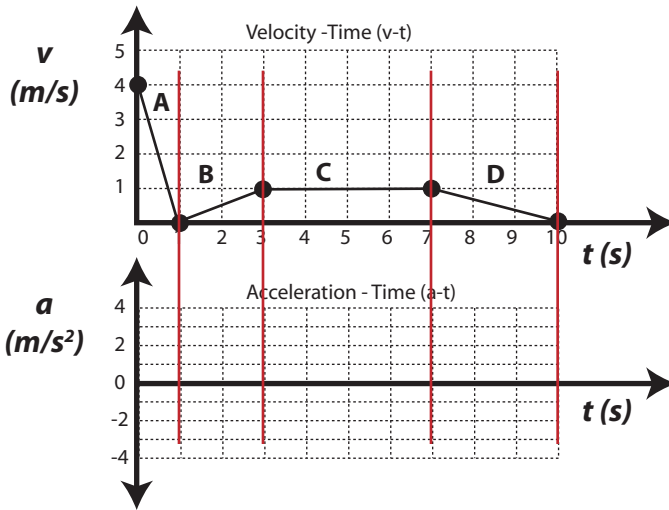
Slope of C = rise/run = -4 m/s / 1 s = -4 m/s<sup>2</sup>

Slope of D = rise/run = 0 m/s / 2 s = 0 m/s<sup>2</sup>

Slope of E = rise/run = 3 m/s / 2 s = 1.5 m/s<sup>2</sup>

Slope of F = rise/run = 0 m/s / 2 s = 0 m/s<sup>2</sup>

4)



**Calculations:**

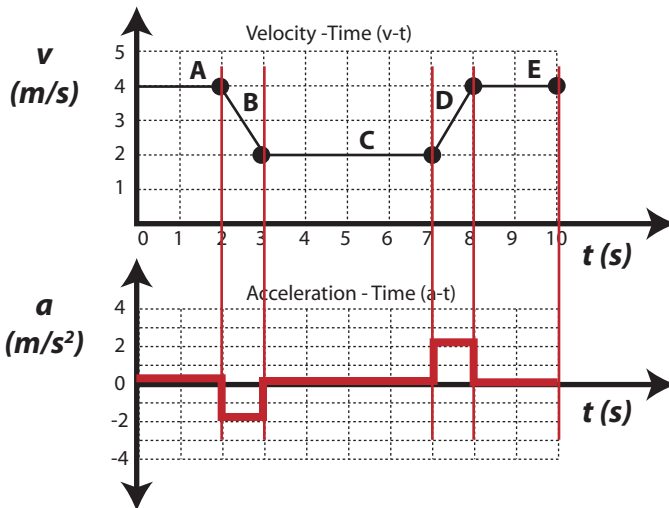
Slope of A = rise/run =  $-4 \text{ m/s} / 1 \text{ s} = -4 \text{ m/s}^2$

Slope of B = rise/run =  $1 \text{ m/s} / 2 \text{ s} = 0.5 \text{ m/s}^2$

Slope of C = rise/run =  $0 \text{ m/s} / 4 \text{ s} = 0 \text{ m/s}^2$

Slope of D = rise/run =  $-1 \text{ m/s} / 3 \text{ s} = -0.33 \text{ m/s}^2$

5)



**Calculations:**

Slope of A = rise/run =  $0 \text{ m/s} / 2 \text{ s} = 0 \text{ m/s}^2$

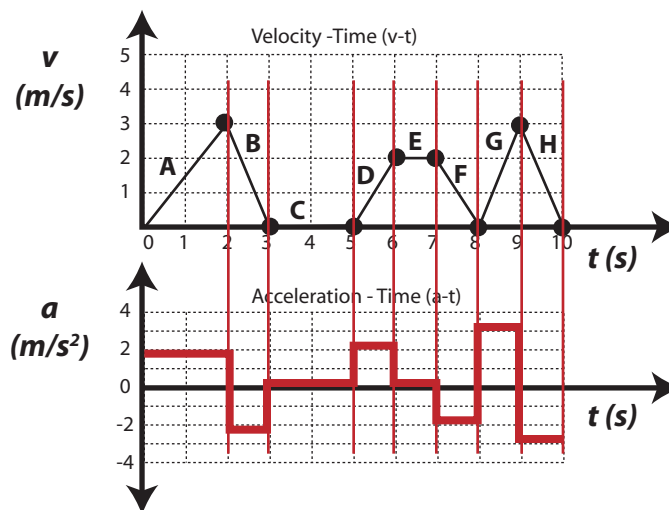
Slope of B = rise/run =  $-2 \text{ m/s} / 1 \text{ s} = -2 \text{ m/s}^2$

Slope of C = rise/run =  $0 \text{ m/s} / 4 \text{ s} = 0 \text{ m/s}^2$

Slope of D = rise/run =  $2 \text{ m/s} / 1 \text{ s} = 2 \text{ m/s}^2$

Slope of E = rise/run =  $0 \text{ m/s} / 2 \text{ s} = 0 \text{ m/s}^2$

6)



**Calculations:**

Slope of A = rise/run =  $3 \text{ m/s} / 2 \text{ s} = 1.5 \text{ m/s}^2$

Slope of B = rise/run =  $-3 \text{ m/s} / 1 \text{ s} = -3 \text{ m/s}^2$

Slope of C = rise/run =  $0 \text{ m/s} / 2 \text{ s} = 0 \text{ m/s}^2$

Slope of D = rise/run =  $2 \text{ m/s} / 1 \text{ s} = 2 \text{ m/s}^2$

Slope of E = rise/run =  $0 \text{ m/s} / 1 \text{ s} = 0 \text{ m/s}^2$

Slope of F = rise/run =  $-2 \text{ m/s} / 1 \text{ s} = -2 \text{ m/s}^2$

Slope of G = rise/run =  $3 \text{ m/s} / 1 \text{ s} = 3 \text{ m/s}^2$

Slope of H = rise/run =  $-3 \text{ m/s} / 1 \text{ s} = -3 \text{ m/s}^2$